



Finding a Cure for Hepatitis B: More NIH Research is Needed

The hepatitis B virus (HBV) is associated with 800,000 deaths each year worldwide, making it the 10th leading cause of death in the world. In the U.S., 1 in 20 Americans has been infected with HBV and an estimated 2 million are chronically infected. Left undiagnosed and untreated, 1 in 4 of those with chronic HBV infection will die prematurely from cirrhosis, liver failure and/or liver cancer. Although HBV is preventable and treatable, there is still no cure for this disease. In view of the epidemic scope of hepatitis B and the fact that the virus was discovered 50 years ago, it is disappointing that funding for HBV research at the NIH has declined by almost 16% since FY 2011 and is expected to fall even further in FY 18.

The Hepatitis B Foundation scientific leadership recommends increasing NIH research funding for hepatitis B an average of \$38.7 million a year for 6 years in order to fund identified research opportunities that would help eliminate the disease once and for all. Hep B United urges the National Institute of Diabetes and Digestive and Kidney Diseases and the National Institute of Allergy and Infectious Diseases to issue targeted calls for HBV research proposals in FY 2018 focused upon therapeutic development and the many new research opportunities identified by the scientific community.

There is the need, the know-how, and the tools to find a cure that will bring hope to more than 250 million people worldwide suffering from hepatitis B. A cure was accomplished for hepatitis C with increased federal attention and funding. It can be accomplished for hepatitis B as well. Each year, despite an effective vaccine, there are 30 million new HBV infections worldwide and over 50,000 new infections in the U.S. Moreover, despite the availability of seven approved medications to manage chronic HBV infection, none are curative, most require lifelong use, and only reduce the likelihood of death due to liver disease by 40-60%.

In addition to the devastating toll on patients and their families, ignoring hepatitis B is costing the United States an estimated \$4 billion per year in medical costs. Yet, the U.S. National Institutes of Health (NIH) will spend only \$49 million in 2016 on hepatitis B research. And it is disappointing that funding for hepatitis B has declined by almost 16% since FY 2011 and is expected to fall even further in FY 18. By increasing the NIH budget for hepatitis B we have a good chance of success in finding a cure in the next few years. There are exciting new research developments and opportunities in the field that make finding a cure very possible.

Since a cure has been developed for hepatitis C, coupled with an increased scientific understanding of HBV, considerable scientific interest has been directed at curing hepatitis B. Last year a paper was published in *Nature Reviews* (Revill *et al*) identifying broad goals for curing HBV. In April 2016, an NIH Workshop on "Cures for Chronic Hepatitis B" was convened, at which critical questions that need to be answered in order to cure HBV were identified. Based on these developments, the Hepatitis B Foundation led an effort to develop a portfolio of critical research topics, with input from the leading research scientists in the U.S. and in the world. The results of this process are a Research Blueprint for Curing Hepatitis B, a document prepared by the leading U. S. scientists in the hepatitis B research community. This paper is will be published in *Hepatology* and it is anticipated a more comprehensive paper will be accepted and published in another journal, shortly thereafter. Furthermore, the Hepatitis B Foundation put together a panel of experts to develop a professional judgment budget that calls for increased funding of \$232.3 million over 6 years or on average an increase of \$ 38.7 million a year for 6 years.